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VACA VALLEY RADIO CLUB

VACAVILLE, CALIFORNIA

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June 2012

President's Message-The Feedline

By Marcus Maclean, KI6WDX

CQ, CQ, CQ, this is Kilo India Six Whiskey Delta X-Ray!

I'm hoping that as many of you as possible will be partaking in this month's annual ARRL VHF/UHF contest which is this coming weekend and the ARRL's annual Field Day event slated for June 26th & 27th. For those club members, family members and their ham friends who took the time within the recent months or year to get their "ticket" to delve into the amateur radio field, I'm asking you as your club president to find some time out of your busy days to partake in both of these radio events. With those operators who only have an HT radio, now might be the time to rethink your position of not having a worthwhile antenna mounted outside somewhere. My opinion is that to continue down this path will only continue to limit your small yet modest investment in your FCC license and that HT you bought. HT's are fine, but their do impose limitations on the operator to be able to effectively communicate with other operators.

Despite the H.O.A.'s and those CC&R environments, there are plenty of ways to get a decent worthwhile antenna up without drawing that unwanted attention of having something visible that goes against those imposed H.O.A.'s and CC&R's housing laws while at the same time of allowing a TV dish type antenna, but nothing in the way of amateur radio antennas!!! How screwy is that? What good is an amateur radio operator whose radio is severely limited by signal range and reception if there is no way to counter this radio signal limitation effect??? How many of you whose sole radio consists of an HT subscribe to the ARRL's QST magazine? The magazine prints information and photos showing ways to beat the H.O.A.'s and CC&R's in putting up an effective antenna. Can't buy a factory made antenna because your $$$ is limited right now? There are ways one can build what they need with little out-of-pocket $$$!

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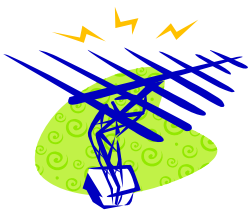
In talking with our club's secretary (Jerry, KD6WKY) recently, putting together a QSO expedition crew sounds like an interesting idea one of which I myself would like to participate with and in considering my possible participation in the event, I'm going to do a little site research to hopefully find the optimal site in which to operate. Sure, the event held each year is just a radio contest sponsored by the California QSO Party organizers, but if this club could put together an effective group of operators that would compete against all of the other radio operators and the competing groups and take to 1st place in this yearly held event I think would show others that Solano county has what it takes to be effective radio operators! If this feat could be done, how would you feel?

This month is our last club meeting until September and with the upcoming BBQ, those who will attend will hopefully find the day outside pleasant and enjoyable. Please remember to bring the item you wish to cook for yourself and if possible, bring a side dish as the side dishes will be "potluck" for everyone. We will not be using any of the ice the fire station has at its disposal with their commercial ice machine as I've found out from talking with the office staff that the ice is there for use by the station personnel and for those emergency service calls. So please bring your own ice, OK? At this year's BBQ event, I will try and remember to bring my handheld Yagi and the HT to possibly work some "birds" if doing that is possible as I've been busy lately with work in my contracting business!

A good group of operators came over to my house to help me in making some suggestions regarding my mounted vertical I use for my VHF/UHF operations here. A lot of good ideas were discussed and I'm still considering all of them, so nothing anyone said has been acted on yet. I'm looking at other antenna installations as I recently got a DX Engineering Spring/Summer 2012 catalog and it is giving me some additional ideas of what I have in mind for installing roof mounted antennas. My truck will be back in operation later this month and I'm looking at buying a Geo-Tool device that will allow me to mount my HF screwdriver antenna on the truck so I can take my HF rig out, find a worthwhile mountain top and have some fun!

OK, it's time to QRT! Until next month, everyone G.O.T.A.!!! 73!



June Meeting Barbeque Picnic

The June club meeting will be outside at the barbeque picnic area of the Vine Street fire station. Bring your own meat and a side dish to share, fire and heat will be provided. Paper plates, paper napkins, and plastic eating utensils will be provided by Jerry KD6WKY. Beverages and ice are wild cards since nobody committed to bringing drinks. Should be fun!

May Club Meeting Minutes

The meeting was called to order by club president Marcus Maclean KI6WDX promptly at 7:00pm followed by the Pledge Of Allegiance.

Old Business: March of Dimes review.

New Business: Bob Hewitt K6HEW presented a multiple point presentation on how to run a club radio net along with suggestions on the newsletter publication and webmaster duties.

Jerry KJ6SCC won the raffle and donated the proceeds to the club general fund.

Discussion on how to organize the June barbeque club meeting took about ten minutes.

Presentation: Dave Beard WA6PEP gave a presentation on Sounds from the Earth describing and showing various readings on meters he designed and describing what kinds of activities were going on in the neighborhood during the reading measurements.

Antenna erection was discussed both in the meeting and one to one with Richard KJ6MIB.

The meeting was adjourned at 8:38pm.

VACA VALLEY RADIO CLUB—2011 ELECTED OFFICERS

President: Marcus Maclean KI6WDX
Vice President: Chris Jones, KD7TQO
Secretary: Jerry Olive, KD6WKY
Treasurer: Bob Hewitt, K6HEW

BOARD OF DIRECTORS

Director: Skip Lawson, AF6HC
Director: Richard Craig, KJ6MIB
Director: Antonio Del Rio, N6ZGB
Director: Tom Christman KE6MDM

APPOINTED POSITIONS

Net Control Chairperson: Marcus Maclean KI6WDX
Activities Chairperson: Board of Directors
Newsletter Editor: Jerry Olive, KD6WKY
Newsletter Publisher & Distributor: Bob Hewitt, K6HEW

Around the Shack

By Jerry Olive, KD6WKY

I just finished sorting and boxing up three pounds of QSL cards bound for the ARRL Outgoing QSL Bureau in Newington, CT. If you follow their instructions it takes awhile to sort the cards by country in alphabetical order. This box of cards represents about 15 months of QSL cards. I last sent out a box of cards in March 2011. Three pounds of cards will cost me $36 for the Outgoing Bureau to send to the various Incoming QSL Bureaus around the world. The upside to this is the cost; the downside is it takes a long time to get a card back via the Incoming QSL Bureau. I can wait.

I worked the CQ WPX Contest over the Memorial Day weekend. This was the CW portion of the contest that started on Friday at 5pm and ran thru Sunday at 5pm. This year I decided to work it on a single band. I chose the 40 meter band so I could work the contest in the evenings and early mornings leaving the daytime to other things. In addition to the single band category I was able to have a sub-category by selecting the single element antenna category since I was using a dipole and low power.

In a little over three hours of working the contest over the entire weekend I logged in 118 contacts with some DX. I worked RI1ANF which is a Russian research station on the South Shetland Island in Antarctica. I just ran a run frequency with a loop keying out my call sign for the contest. I did not search and pounce at all.

I think this is the last contest until the California QSO Party on the first weekend of October. Barring any glitches, I'll be operating from Yolo County as a County Expedition again.

Over the past month I have worked some interesting DX. I just worked the DXpedition in Bhutan call sign A5A both CW and SSB. That's very exciting when you do some research and discover how difficult it is to travel to Bhutan. This dot of a country is in the Himalayas between Inner-Mongolia and India. You can't get from here to there without a lot of time, money, and patience. Search it and see what I mean.

The past week I have noticed Europe has been very strong into North America on the 20 meter band. In fact Skip AF6HC and I have been trading telephone calls with DX spots. The rule is, work the DX station, and then call your buddy. J

I just finished working 15 different Museum Ship Amateur Radio Stations over the weekend during the special event where they all get on the air. That was a lot of fun. Of the 15 club stations, I worked all three battleships on the air. I suppose at some point in the future USS Iowa will be on the air

when she is all rehabilitated in Port of Los Angeles.

I got that emergency email from Bob K6HEW about the amateur radio station that was on the air from the deck of USS Iowa just prior to leaving Richmond a few weeks ago. That operator was working on 20 meters which made it impossible for me to work him since my signal skips right over the top of him at this short distance. Stations in Vermont had a better chance of work him that I did.

On the other hand over the weekend I worked USS Hornet over in Alameda very quickly on the 40 meter band which works well for short distances like this. With a distance of a few thousand miles I was able to work USS Missouri in Hawaii on 5 watts QRP on the first call with a 59 signal report which followed our five minute conversation about Navy Radiomen. You just never know what it will take to work someone sometimes.

I got my 2011 California QSO Party results over the weekend. Working from home last year as a single operator, low power, I achieved a score of 90,020 which was good enough to be first in my category for Solano County. It's funny how a claimed score of 92,680 shrinks by 2,660 points after a log check. After some analysis discovered I was running about a 3.7% error rate on CW and a 1% error rate on phone. I guess that's pretty good, but I hate to see errors on a contest like this. I worked a total of 624 stations of which 357 were CW and 267 were on phone. I had 56 of a possible 58 multipliers, missed Saskatchewan and Northern Territories. I did work all states in just over a day though! I'll take it. I remember the third to the last contact was North Dakota and as it turns out ND was the one most people were missing to WAS according to the contest summary.

That's it for now. Call me if I can assist you with any antenna or tower work. 73!

May Financial Report

General Fund = $1,695.84
Repeater Fund = $709.00
Prize Fund = $66.00
Total Funds = $2,525.41

THE VVRC WELCOMES YOU

The Vaca Valley Radio Club has proudly served the Northern Solano County Area since 1988. We pride ourselves in providing a friendly place for radio amateurs to meet and improve their operating skills.

We participate in public service events throughout the year and are always ready to assist with communications during times of emergency.

Browse our website for more information about our club. If you have any questions please email us at w6vvr@w6vvr.net or call 707-448-5665 for assistance.

The Repeater is Published by the Vaca Valley Radio Club, PO Box 143, Elmira, CA 95625-0143, An ARRL Affiliated Club. Founded 1987, Chartered 1988 General Meetings: 2nd Wednesday of each month at 7:30 PM 420 Vine Street Fire Station.

Wheelchair accessible

PROPAGATION ON THE "MAGIC BAND"

By Robert Magnani K6QXY

Six meters is a very unique amateur band. Every mode of propagation known to exist can be found here. In fact, the 6 meter amateur band was actually an FCC compromise that recognized the importance of this block of frequencies. Originally the Commission was going to give amateurs a band between 44 and 48 mhz. Intense lobbying by the ARRL convinced the FCC there were enough "unique propagation attractions" to assign the 6 meter band to 50-54 mhz.

There are three major forms of propagation that can cause real excitement on the "Magic Band".

F-Layer Propagation

Approximately every 11 years the sun explodes into violent solar storms. These solar storms produce sufficient amounts of radiation to excite the F-layer producing a very radio reflective surface. A smoothed sun spot number of at least 120 is needed for the M.U.F. (maximum useable frequency) to reach 50 mhz. When this occurs, 50 mhz. signals can be propagated to distances exceeding 10,000 miles!!!!

The height of the ionized F2 layer reflections produce single hop distances approaching 2,500 miles. With the sun rotating on its axis every 27-28 days, a sun spot or complex group of spots, will again face the earth and a particular series of events will often repeat itself every 27-28 days.

Transequitorial Propagations

One of the most exciting propagation modes is transequitorial propagation or "TEP". TEP is really the scattering from ionospheric irregularities at very high altitudes. Actually TEP was discovered by amateurs during the late 1950's. They called the new mode "Transequitorial Field Aligned Irregularities".

TEP forms across the "Geomagnetic Equator", with stations ideally situated on a north south axis at equal distances either side of the "Geomagnetic Equator". Occurring near the two solar equinoxes in March and September, TEP occurs in the late afternoon and early evening. There is a strong positive correlation with the solar cycle peak. M.U.F.'s of TEP signals can often exceed 400 mhz. There is a strong correlation between the formation of TEP and auroral events. TEP signals often exhibit the same "garbled" characteristics as that of auroral scattered signals.

Sporadic E

One of the most misunderstood VHF propagations modes is

Visit the Repeater online courtesy of Bob K6HEW at:
vacavalleyradio.net

Club repeater in Vacaville:W6VVR 145.470 MHz(-) pl 127.3
The W6VVR net call is Tuesday evenings at 8pm on the club repeater. All are invited to participate in this weekly meeting on the air. 73!

Additional local repeaters
WV6F 224.2ØØ (-) PL 127.3Hz
WV6F 44Ø.Ø25 (+) PL 127.3Hz

"Sporadic E". Sporadic E normally displays a major peak during the summer months of May through August, and then again with a minor peak in the winter months of November and December.

Sporadic E appears to be reflections from dense patches of ionization that form at E-layer heights. The height of the E-Layer reflections produce single hop distances on the order of 1,200 miles. One, two, three and even four hop sporadic E has occurred with distances exceeding 5,000 miles. Whether they are actually hops that touch the earth or "Chordial Hops" that just graze the earth or even "cloud to cloud reflections" is not clear. The actual cause of sporadic E is unknown. Theories include high altitude wind shear and the generation of strong electron fields associated with high altitude thunder storms. Research now indicates that certain "multi-hop Sporadic E" paths, especially those that cross the "Auroral E Zone" and the "Equitorial E Zone" exhibit strong "diurnal" characteristics. These paths show a remarkable consistency in time of day, month and year repeatability.

There does not seem to be any correlation with the 11 year solar cycle, but data seems to suggest a 5-7 year cycle with a 5-7 day underlying cycle.

Other forms of propagation on the "Magic Band" include "meteor scatter", "aurora" and "Auroral E's" plus the various scatter modes. All of these in combinations with the above mentioned major modes contribute to exciting times on 6 meters.

A "must" reading for all "Magic Band" enthusiasts is the ARRL publication Beyond Line of Sight by Emil Pocock W3EP. Emil brings together articles and papers on VHF propagation from the pages of QST. Another fine source of 6 meter propagation data can be found on Bob Mobile's (K1SIX) site

Email to Marcus Maclean KI6WDX Regarding Pave Paws

----- Original Message -----
From: Henderson, Dan N1ND
To: Mr. Wizard
Sent: Tuesday, May 22, 2012 11:05 AM
Subject: RE: Regarding PAVE PAWS

HI Marcus

I apologize for the delay. For the past month I have been working almost exclusively on the ARRL's comments in an FCC proceeding and am just now catching up with the backlog.

In general, as long as you are operating a home station not beaming directly at Beale, and if you are abiding by the limited power restriction of 50 watts if you are within 175-miles of the base, you should not be affected. At this point in our conversations with the Air Force they have not indicated specific problems with lower power home stations.

73

Dan Henderson, N1ND
Regulatory Information Manager
ARRL, the national association for Amateur Radio
860-594-0236
dhenderson@arrl.org

Topics of Discussion from the Membership

Here are a few topics of discussion some of our membership is interested in learning more about:

Antenna tuning: Use of auto tuners and manual tuners.

Question-1:
In which ORDER should the three components (knobs) - Input/Output/Inductance (or Inductance/Capacitance/Transmitter) - be adjusted?

Discussion points:
Working QRP at 2 Watts, I can't afford to loose much power through a sloppily adjusted tuner. I can get good SWR readings for many different configurations of the three tuner adjustments, but which configuration would produce the LEAST amount of power-out loss? Which is the most desired...
More inductance - less capacitance?
More capacitance - less inductance?
Do I first tune the Transmitter side before I try to adjust the other two - or save that till last?

Note: It has been awhile since I attacked any Reactance problems, and have forgotten most of the heavy theory... I don't suppose there is an easy answer that a layman can cope with out there - like the KISS principal?

Amateurs Asked to Listen for HORYU-2 Satellite

05/18/2012

The Japanese **HORYU-2** research satellite was launched May 17 at 1639 UTC as part of a mission that included the JAXA climate observation satellite Shizuku.

HORYU-2 was built by students at the Kyushu Institute of Technology (KIT) and it carries the call sign JG6YBW. The satellite will conduct a variety of experiments including high-voltage power generation and space debris measurements.

Amateurs have been asked to monitor HORYU-2's Morse code and 1200-baud AX.25 packet telemetry at 437.375 MHz. Telemetry decoding software is available for downloading **from KIT**.

FCC Dismisses Texas Ham's Fourth *Petition*, Calls it "Repetitive"

05/22/2012

For the fourth time in six years, the **FCC has rejected a *Petition for Rulemaking* filed by Glen Zook, K9STH**. In each of his *Petitions*, (2006, April 2009, 2011 and a *Petition for Reconsideration* in December 2009), Zook has asked the FCC to change its station identification rules as set forth in **Section 97.119(a)**. His 2011 *Petition* was no different: Zook **told the FCC** that since "[v]irtually every amateur station does *not* identify at the end of the communication," he requested that the station identification rule be amended to provide that if an amateur station transmits its call sign during its first transmission, that station need not transmit its call sign at the end of the transmission, provided that the transmission is less than three minutes. Zook called this the "3-minute rule."

In denying Zook's 2011 *Petition*, the FCC noted that he has filed numerous *Petitions* on the same matter -- modifying station identification rules -- all of which have been denied. "**Section 1.401(e)** of the Commission's Rules provides that *Petitions for Rulemaking* that are 'repetitive, frivolous, or which plainly do not warrant consideration by the Commission' may be dismissed," the FCC explained in denying Zook's latest *Petition*. "Your proposal to reinstate the '3-minute rule' was dismissed twice in the last five years. Your latest petition sets forth no new facts or changed circumstances warranting further consideration of the proposal. The current petition, therefore, is repetitive. Accordingly, we dismiss the *Petition*."

The FCC pointed out that Zook had filed a ***Petition for Rulemaking* in May 2006**, requesting that it amend Section 97.119 (a) "to incorporate certain portions of the Commission's former station identification rule, including allowing the transmission of the call sign to be omitted at the end of a series of transmissions lasting less than three minutes." After the FCC placed this *Petition* on Public Notice -- where it received approximately 100 comments -- the FCC dismissed it in 2007, "concluding that the requested changes were neither necessary nor supported by the Amateur Radio community, and that the problem of amateur operators not identifying their stations would be better addressed by enforcement of the present rule rather than a rule change."

PLEASE RENEW YOUR MEMBERSHIP

VACA VALLEY RADIO CLUB, INC.

MEMBERSHIP APPLICATION / RENEWAL FORM

Please Print & Fill in Completely — Dues are delinquent January 1st

Name: _____ Call Sign_____
Street: _____
City: _____Zip: _____
Phone: (_____) _____-_____OK to Publish ?(_____)
License Class: _____ ARRL Member ?(_____)
E-Mail Address_____

FAMILY Member (Spouse or Children)

Name: _____ Call Sign_____
License Class: _____ARRL Member ?(_____)
Name: _____ Call Sign_____
License Class: _____ARRL Member ?(_____)
Name: _____ Call Sign_____
License Class: _____ARRL Member ?(_____)

MEMBER Dues --------- $20.00 _____
Each Family Member -- $ 2.00 _____
Student ---------- $ 5.00 _____
Repeater/Autopatch donation --- _____
Call/Name badge -------- $11.00 _____
Optional ARRL membership
ARRL dues---------- $37.00 _____

Total---------- _____
Paid by CASH: ____ Check #_____
DATE:_____

Mail to : Vaca Valley Radio Club, PO Box 143, Elmira, CA 95625-0143